AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID C	CODE	PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO. 0004	3. EFFECTIVE DATE 8/31/04	4. REQUISITION/PURCHAS W25PHS-4061-7415	SE REQ. NO.	5. PROJECT	NO. (If applicable)
6. ISSUED BY COL	DE	7. ADMINISTERED BY (If	7. ADMINISTERED BY (If other than Item 6) CODE		
US Army Engineer District, Philadelphia Wanamaker Building, 100 Penn Square East Philadelphia, Pennsylvania 19107-3390		Attn: Michelle Bertoline, 215-656-6914			
8. NAME AND ADDRESS OF CONTRACTOR (No., stre			W912BU-04-B-0014		
			9B. DATED (25 June 20	Configuration and a second	
			10A. MODIFIC	CATION OF CON	TRACTS/ORDER
CODE	FACILITY CODE		10B. DATED	(SEE ITEM 13)	
11. THIS I		O AMENDMENTS OF SO	OLICITATIONS		
(a) By completing Items 8 and 15, and returning submitted; or (c) By separate letter or telegram which MENT TO BE RECEIVED AT THE PLACE DESIGNATED IN REJECTION OF YOUR OFFER. If by virtue of this an letter, provided each telegram or letter makes reference 12. ACCOUNTING AND APPROPRIATION DATA (If re BEACHFILL, DELAWARE COAST FROM 13. THIS ITEM IT MODIFIES (√ )  A. THIS CHANGE ORDER IS ISSUED PURSUANT TRACT ORDER NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER appropriation date, etc.) SET FORTH IN ITEM 10.  C. THIS SUPPLEMENTAL AGREEMENT IS ENTER 10. OTHER (Specify type of modification and authority)	includes a reference to the sc. FOR THE RECEIPT OF OFFEI nendment you desire to channe to the solicitation and this acquired)  MM HENLOPEN TO FI  APPLIES ONLY TO MES THE CONTRACT/OFT TO: (Specify authority) THE  ILS MODIFIED TO REFLECT TO THE AUTHORISM AUT	RS PRIOR TO THE HOUR AND ge an offer already submitted, a mendment, and is received principle. The control of t	bers. FAILURE OF YOU DATE SPECIFIED MA Such change may be or to the opening hou HOBOTH BEAC TRACTS/ORDEF D IN ITEM 14.	DUR ACKNOWLE  LY RESULT  made by telegra  ar and date speci  CH & DEWE  RS,  THE CON-	m or fied.
E. IMPORTANT: Contractor is not,	is required to si	gn this document and re	eturnc	opies to the	issuing office.
The bid opening date is hereby extended to Please indicate receipt of this Amendment of 0004. Failure to acknowledge all Amendment	September 8, 2004 at 1	11:00 a.m.			ndment Number
Except as provided herein, all terms and conditions of	the document referenced in I	tem 9A or 10A, as heretofore o	hanged, remains unc	hanged and in fo	ull force
and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF	- CONTRACTING OF	FICER (Type or p	rine)
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNE		AMERICA		16C. DATE SIGNED
(Signature of person authorized to sign)		BY(Signatus	re of Contracting Offi	icer)	

30-105-02

### 14. DESCRIPTION OF AMENDMENT (continued)

### a. SPECIAL CONTRACT REQUIREMENTS:

(1) Section 00800, SPECIAL CLAUSE SC-1 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK - Please make a pen and ink change so the paragraph reads as follows:

"The Contractor shall be required to (a) commence work under this contract within 10 calendar days after the Contractor receives the initial notice to proceed, (b) prosecute the work diligently, and (c) complete the entire Base Bid work ready for use not later than 270 calendar days after the date the Contractor receives the initial notice to proceed. A final notice to proceed on the Base Bid work will be issued a maximum of 90 days after the issuance of the initial notice to proceed. The initial and final notice to proceeds are related to the location of the Contractor's work limit (see contract drawings).

Options 1, 2, and/or 3: The Contracting Officer has the right to exercise Options 1, 2, and/or 3 within 90 calendar days after the Contractor receives the *initial* notice to proceed for the Base work. The period of performance of the contract will not be extended for the award of Options 1, 2, and/or 3 and the Options 1, 2, and/or 3 work shall be completed concurrently with Base work.

The time stated for completion shall include final cleanup of the premises."

## b. TECHNICAL SPECIFICATIONS:

- (1) Section 01355 ENVIRONMENTAL PROTECTION: Please  $\underline{\text{delete}}$  page 01355-7 in its entirety and  $\underline{\text{substitute}}$  revised page 01355-7 annotated Amendment No. 0004, attached hereto.
- (2) Section 01720 SURVEY REQUIREMENTS: Please delete page 01720-3 in its entirety and <u>substitute</u> revised page 01720-3 annotated Amendment No. 0004, attached hereto.
- (3) Section 02446 SAND FENCE AND DUNE GRASS: Please <u>delete</u> this section in its entirety and <u>substitute</u> the new section of the same number, annotated Amendment No. 0004, attached hereto.
- c. Please  $\underline{\text{indicate}}$  receipt of this amendment on Standard Form 1442(SOLICITATION, OFFER, AND AWARD) as Amendment No. 0004. Failure to acknowledge all amendments may be cause for rejection of the bid.

#### 3.5 DISPOSAL OF DEBRIS

All debris resulting from contract operations shall be removed from the project sites daily, as directed by the Contracting Officer, and disposed of at the Contractor's expense. Such disposal shall comply with all applicable Federal, state, and local laws.

3.6 MAINTENANCE OF POLLUTION, EROSION AND SEDIMENTATION CONTROL FACILITIES DURING CONSTRUCTION

During the life of this contract, the Contractor shall maintain all facilities constructed for pollution, erosion and sedimentation control under this contract as long as the operations creating the particular pollutant are being carried out or until the material concerned has become stabilized to the extent that pollution is no longer being created. During the contract period, the Contractor shall conduct frequent training sessions on environmental protection. The curricula should include methods of detecting and avoiding pollution; familiarity with pollution standards, both statutory and contractual; and installation and care of vegetative covers, plants and other facilities to prevent and correct environmental pollution.

#### 3.7 MEASUREMENT AND PAYMENT

### 3.7.1 Sea Turtle Modifications

The work specified in this section for the sea turtle modifications and whale monitoring will not be measured for payment and all costs in connection therewith shall be included in the contract lump sum price for Bid Item No. 3, "Sea Turtle Modifications".

#### 3.7.2 Environmental Protection

No separate measurement or payment will be made for all other work specified in this section and all costs in connection therewith shall be included in the costs of all the bid items.

-- End of Section --

surveys shall be performed under the direction and supervision of a Delaware Professional Licensed Surveyor with 5 years current experience in beach profiling. All hydrographic surveys shall be conducted under the direction and supervision of a Surveyor certified by the American Congress on Surveying and Mapping (ACSM) as an In-Shore Hydrographer, or by a Professional Licensed Surveyor with a minimum of 5 years documented experience in a hydrographic surveying environment similar in nature to the surveys required under this Contract. The licensed surveyors shall be onsite a minimum of 10 percent of the time spent completing onsite survey work.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

### 3.1 GENERAL SURVEY REQUIREMENTS

The Contractor shall be responsible for conducting all surveys required to demonstrate that the construction is in compliance with the specified tolerances and the lines, grades, and elevations shown on the drawings. The Contractor shall be responsible for all surveys for payment purposes as specified in Special Clause SC-11 QUANTITY SURVEYS.

### 3.1.1 Approvals Required

All surveying procedures, methods and equipment for topographic, hydrographic and tidal monitoring (if applicable) surveys, shall be reviewed and approved by the Government Survey Point of Contact prior to the conduct of any type of surveying work. This review process shall also include the review and acceptance of the Surveyor's Qualifications, as defined in the Paragraph entitled: "Qualifications of Surveyor".

### 3.1.2 Vertical and Horizontal Datums

The Contractor shall utilize North American Vertical Datum (NAVD) 1988 as the vertical datum for elevation and depth references for all cross sections, and shall be responsible for obtaining necessary ocean tide height measurements during the survey periods to assure that accurate adjustments are made to the observed depths to account for tidal variations in water level. The Contractor shall utilize Delaware State Plane Coordinate System (NAD 1983) as the horizontal reference datum.

#### 3.1.3 Tolerances

Topographic surveys shall be surveyed utilizing surveying procedures and methodology that meet or exceed accuracy tolerances of +/- 0.20 feet in the vertical and +/- 1.0 feet in the horizontal. Hydrographic surveys shall be surveyed utilizing surveying procedures and methodology that meet or exceed accuracy tolerances of +/- 0.20 feet in the vertical and +/- 3.0 feet in the horizontal. Horizontally, the vessel will be kept to within +/- 25 ft of the cross section line. In areas where obstructions are present, complete notes shall be taken explaining the offset.

# 3.1.4 Overlap of Survey Techniques

Survey lines requiring multiple collection methods shall have a minimum of 50 feet of overlap and five points recorded in each method recorded. All points shall be recorded in the final submittal with attributes indicating the recording method attached. Survey points must be within 25' lateral

#### SECTION 02446

### SAND FENCE AND DUNE GRASS

#### PART 1 GENERAL

# 1.1 SCOPE OF SECTION

The work covered by this section consists of furnishing all labor, materials, and equipment, and performing all operations required for the erection of sand fence and the planting and seeding of dune grass, as specified herein and shown on the drawings.

### 1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

#### ASTM INTERNATIONAL (ASTM)

ASTM A 641 (2003) Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire

ASTM F 1667 (2003) Driven Fasteners: Nails, Spikes, and Staples

#### 1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. See Section 01330 SUBMITTAL PROCEDURES for all procedures related to the submission of submittals.

The following shall be submitted:

SD-07 Certificates

Sand Fence. Dune Grass Plants and Seed.

Statement signed by an official authorized to certify on behalf of the manufacturer of a product, system or material, attesting that the product, system or material meets specified requirements. The statement must be dated after the award of the contract, must state the Contractor's name and address, must name the project and location, and must list the specific requirements which are being certified.

### PART 2 PRODUCTS

#### 2.1 SAND FENCE

The slats shall be No. I grade of White Cedar, Spruce, Douglas Fir or other

approved species of wood substantially free from excessive wane, knots, decay, broken or short slats and unsquare ends. The slats shall be a full 3/8" thick by a full 1-1/2" wide by 4'high and unpainted. The wire shall be not less than 14 gauge with a zinc coating of not less than 0.3 oz./square foot of uncoated wire surface and it shall have a tensile strength of 65,000 to 80,000 psi. The slats shall be spaced 2 1/4" a part plus or minus 1/4". There shall not be less than 2 twists (one twist equals 360 degrees) of the wire between the slats. The five strands of wire shall be placed 10" apart and 4" from each end. The wire shall be woven in such a manner that the zinc coating shall not be removed nor the strength of the steel impaired. The fence shall be stretched after weaving and before being placed in rolls 50'in length.

### 2.2 Fastenings

Staples shall conform to ASTM F 1667, Type IV, Style I having a minimum length of 1-1/2 inches and zinc-coated conforming to ASTM A 641, Class 3 coating.

### 2.3 DUNE GRASS

#### 2.3.1 Plants

Plants shall be the Cape variety of American Beachgrass (Ammophila breviligulata). Each plant shall consist of two or more healthy culms. Plants which are damaged will not be accepted.

#### 2.3.2 Seed

Seed shall be the Atlantic variety of coastal panicgrass (Panicum amarum).

#### 2.3.3 Fertilizer

Fertilizer shall be a controlled release form (5-6 month release) that supplies 60-80 pounds of Nitrogen per acre and 30-40 pounds of Phosphorous per acre in a one time application. Fertilizer shall be granular, uniform in composition, free-flowing, and suitable for application with approved equipment.

#### PART 3 EXECUTION

#### 3.1 SAND FENCE

The sand fence shall be erected in such a manner as to accumulate wind blown sand and thereby aid in the formation of a dune. Fence shall be erected in the locations and along the lines shown on the drawings. Posts shall be provided at a maximum spacing of 8 feet and shall be driven 4 feet into the ground. Fence shall be secured to posts with bottom portion of fence touching the ground surface. Fence shall be stapled to posts at the same locations as the picket bindings.

## 3.2 DUNE GRASS

## 3.2.1 General

The dunes shall be fertilized, planted, and seeded with beachgrass and panicgrass after construction of the dune has been completed.

### 3.2.2 Surface Preparation

All surfaces to be planted shall be graded with no sharp depressions greater than 2 inches in depth. All compacted areas shall be scarified to a depth of 3 inches prior to planting.

### 3.2.3 Planting Method

### 3.2.3.1 Beachgrass

One beachgrass plant consisting of two or more culms shall be planted per hole. All beachgrass plants shall be in a dormant state at the time of planting. The plants shall be placed at the density indicated on the contract drawings. The controlled release fertilizer shall be applied (in a one-time application) by broadcasting over planted and seeded areas at a rate and grade formulation that supplies the specified fertilizer at the time of planting or within 30 days after planting. Care shall be exercised to avoid trampling and damaging beachgrass during planting and fertilizer application.

# 3.2.3.2 Panicgrass

The dunes shall subsequently be over seeded into the stands of American beachgrass with panicgrass from the centerline of the dune to the landside dune toe. The panicgrass shall be seeded at a rate of 10 pounds of seed (pure live seed) per acre. Seeds shall be planted 2.0 to 2.5 inches deep either by hand or by a mechanically operated drill or seeder. Care shall be exercised during panicgrass seeding to avoid trampling and damaging the planted beachgrass.

## 3.2.4 Planting Season

Beachgrass shall only be planted between 15 December and 1 April, under nonfrozen soil conditions. Panicgrass seeds shall only be planted between 15 February and 1 April.

# 3.2.5 Care and Protection

The Contractor shall be responsible for proper care and protection of all planted areas. At least 80% plant survival is required in areas at the end of the first growing season. Areas having less than an 80% survival rate shall be replanted and fertilized by the Contractor.

# 3.3 MEASUREMENT AND PAYMENT

### 3.3.1 Dune Grass

The work specified in this section for planting and seeding of dune grass will not be measured for payment. Payment for this work will be made at the contract lump sum price for "Dune Grass," Bid Item No. 7.

### 3.3.2 Sand Fence

The work specified in this section for sand fence, installed parallel to the dune centerline, will be measured for payment by the linear footage of sand fence installed. Payment for this work will be made at the contract unit price for "Sand Fence," Bid Item No. 8. (All sand fence incidental to construction of dune crossovers shall be included in the unit prices for those dune crossovers.)